



FORTINET



FortiADC 2000F

QuickStart Guide





May 03, 2017

1st Edition

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本日、フォーティネット製品の登録をお願いします。

登録すると次のメリットがあります。

テクニカルサポート・新機能の追加・新しい脅威への防御

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Email: register@fortinet.com

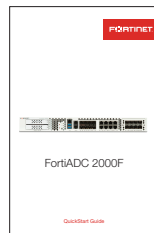




Box Includes



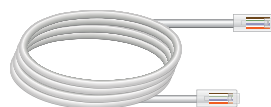
FortiADC 2000F



QuickStart Guide



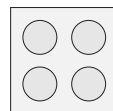
2 Power cables



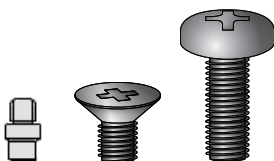
Ethernet cable



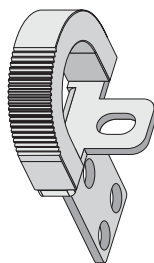
Console cable



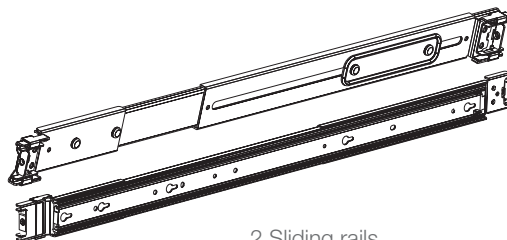
5 Rubber feet



1 screw pack for sliding rails and rack mount bracket



2 Sliding rail handles



2 Sliding rails





Before You Begin

Write down details that you may need from your network administrator or ISP.



DSL PPPoE

Username

Password

Cable Modem DHCP

It is normal to not require a hostname but your ISP may require it.

Hostname

T1/E1, Static broadband, Cable, or DSL with a static IP

IP Address

Subnet Mask

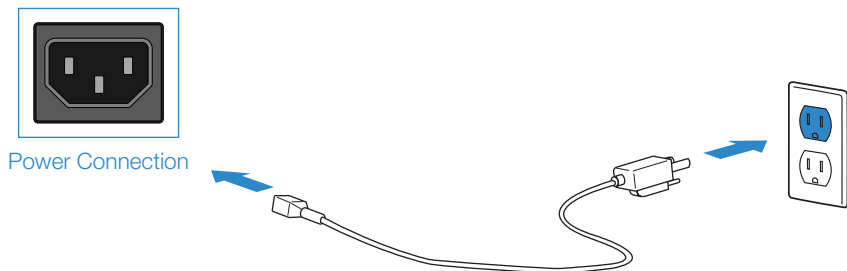
Default Gateway

Primary/Secondary DNS





1 Basic Connections



Plug the provided power cable into the rear of the appliance, and then into a grounded electrical outlet or a separate power source such as an uninterruptible power supply (UPS) or a power distribution unit (PDU).





2 FortiADC Setup Options

A

Web Browser

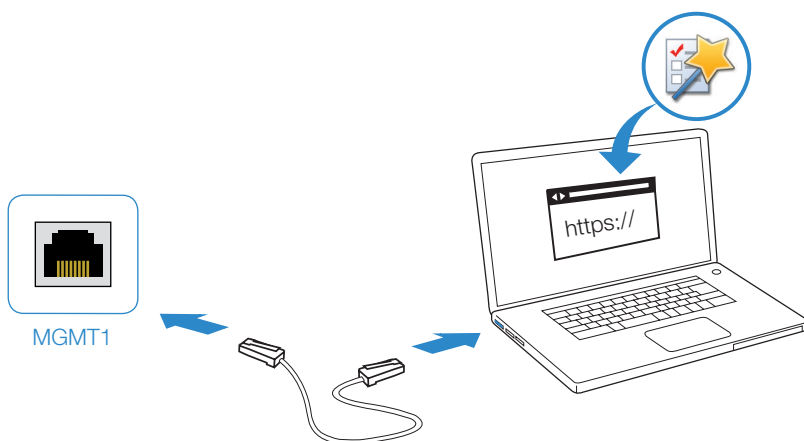
With Ethernet cable (p.5)

B

Terminal Emulation

With console cable (p.6)

A Web Browser with Ethernet cable



To connect to the Web UI

Requires: Microsoft Internet Explorer 9 or higher, the latest version of Mozilla Firefox, Apple Safari 6, or Google Chrome.

1. Use the [Ethernet cable](#) to connect MGMT port of the FortiADC unit to the management computer.
2. Configure your computer to match the appliance management port default subnet. For example, from the Windows 7 Control Panel, go to Network and Sharing Center. Click the [Local Area Connection](#) link, and then click the [Properties](#) button. Select [Internet Protocol Version 4 \(TCP/IPv4\)](#) and then click its [Properties](#) button. Select [Use the following IP address](#), and then enter the following settings:

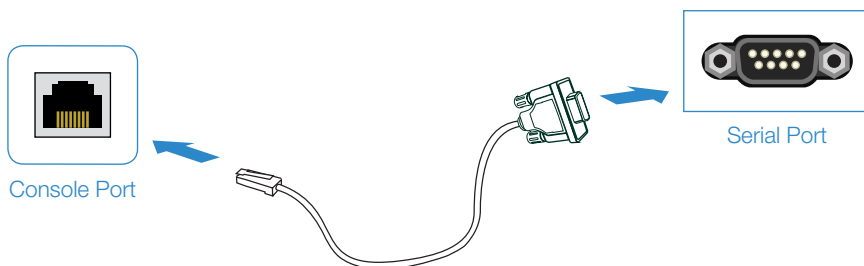
IP address: 192.168.1.2

Netmask: 255.255.255.0

3. To connect to the web UI, start a web browser and go to <http://192.168.1.99>.
4. Type [admin](#) in the Name field, leave the Password field blank, and then click [Login](#).



B Terminal Emulation with Console Cable



To Connect to the CLI

Requires: Terminal emulator such as PuTTY, Tera Term, or a terminal server.

1. Connect the appliance console port to the management computer using the provided console cable.
2. Start a [terminal emulation program](#) on the management computer. Select the [COM port](#) and use the following settings:

Baud Rate: 9600

Data bits: 8

Parity: None

Stop bits: 1

Flow Control: None

3. Press [Enter](#) on your keyboard to [connect to the CLI](#).
4. Login using username ["admin"](#) and [no password](#). You can now proceed with configuring your device.

Get started by typing ["?"](#) for a list of available commands.

Begin typing a command and type ["?"](#) for a list of available ways to complete. For example ["config ?"](#) shows the lowest level of configuration options.



3 General Installation



The FortiADC unit can be mounted in any standard [19 inch rack](#) unit with the provided rail mount kit.

Please read the “Cautions and Warnings” prior to installing your device.

To install the FortiADC unit into a rack:

1. Ensure that the FortiADC unit is placed on a stable surface prior to [rack-mount](#) installation.
2. Assemble the [rails](#) and install the system in the rack following the [safety instructions](#) and the rack installation instructions in [Rail Installation](#) (p. 8).
3. Verify that the [spacing](#) around the FortiADC unit conforms to requirements and that the unit is level.
4. Connect the provided [power cables](#) to the system.
5. Plug the other end of the power cables into separate power sources, such as [uninterruptible power supplies](#) (UPS) or [power distribution units](#) (PDU).
6. Insert one end of the provided [Ethernet cable](#) into one of the Ethernet ports on the FortiADC unit. Insert the other end to a [router or switch](#) that is connected to the [Internet](#).
7. Press the [power button](#) on the system to turn on the device.

Do not place heavy objects on the unit.

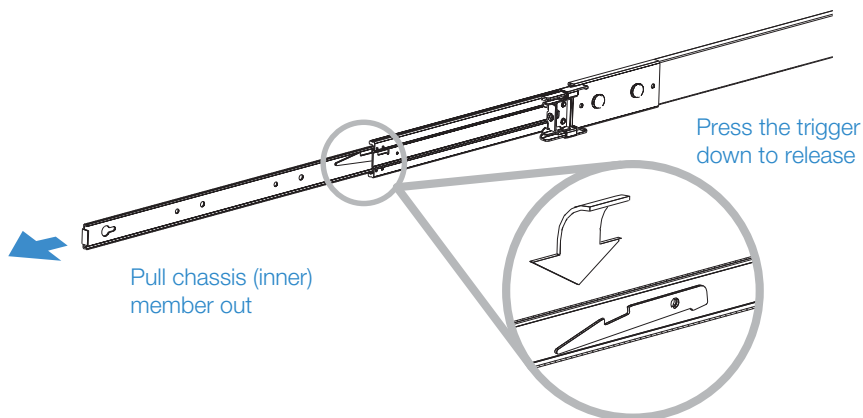




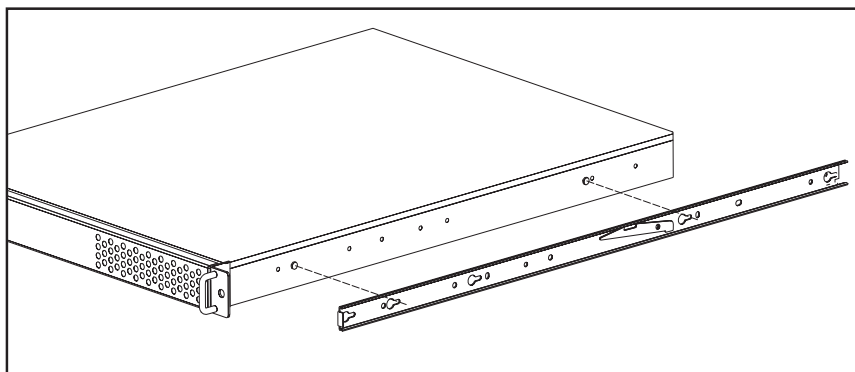
4 Rail Installation

To install the FortiADC unit using the rail mount kit:

1. To remove the chassis (inner) member, pull the slide open, and then press the trigger down as shown on the drawing, and pull the chassis (inner) member out.

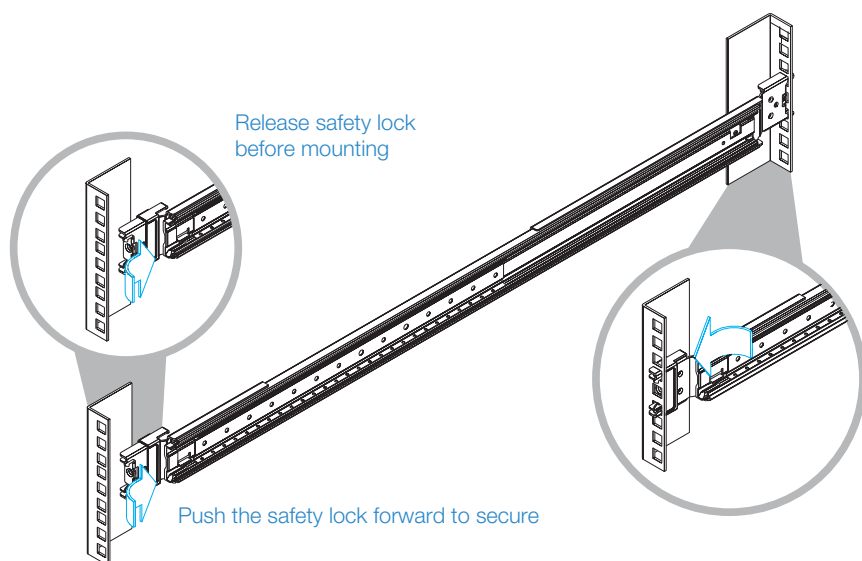


2. Use the standoffs to mount the chassis (inner) member to the chassis.

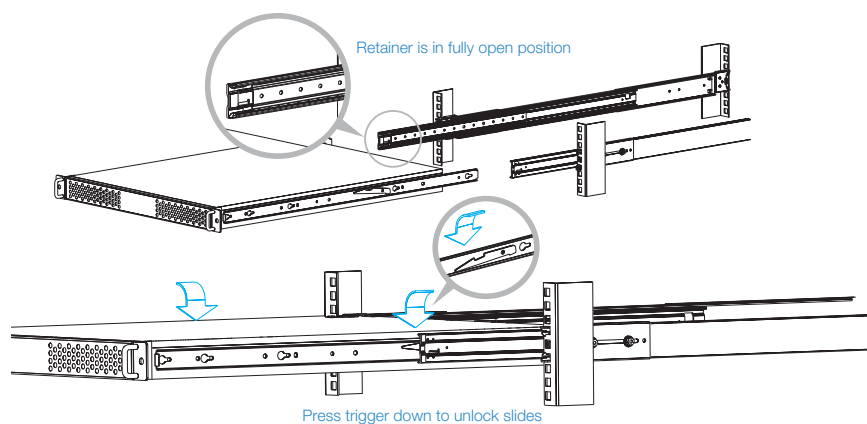


3. To attach the cabinet (outer) member to the rail, first ensure that the safety lock is in the unlocked position. Then, insert the stag into the upper and lower square holes on the EIA rail from the back of the rail. Finally, push the safety lock forward to secure the bracket.





4. To mount the chassis into the cabinet, first ensure that the ball retainer is in the fully open position. Then, insert the chassis (inner) member into the cabinet member. When you push the chassis back into the cabinet, press the trigger down to release the slide from the locked position.



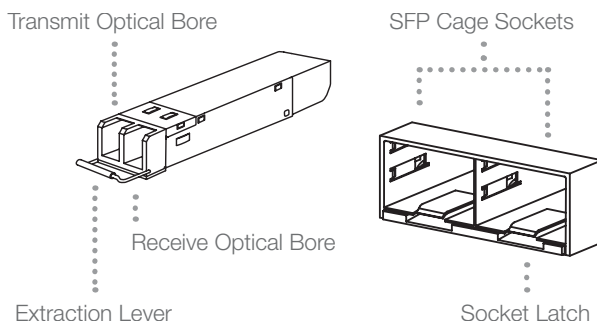


SFP Transceivers

Caution: SFP transceivers are static sensitive devices. Use an ESD wrist strap or similar grounding device when handling transceivers.

Do not install or remove SFP transceivers while fiber-optic cables are still attached. This can cause damage to the cables, cable connectors, and the optical interfaces. It may also prevent the transceiver from latching correctly into the socket connector.

Note: Installing and removing SFP transceivers can shorten their useful life. Do not install or remove transceivers more than is necessary.

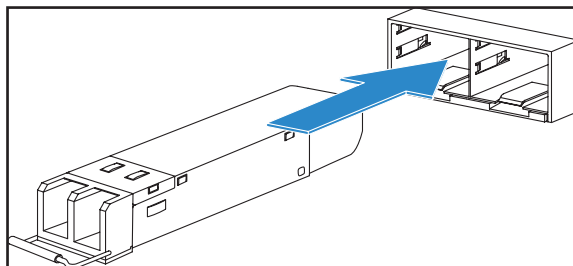


To install the SFP transceivers

1. Ensure that you are properly grounded.
2. Remove the caps from the SFP cage sockets on the front panel of the unit.
3. Position the SFP transceiver in front of the cage socket opening and ensure that the transceiver is correctly oriented. When the transceiver is correctly oriented, the extraction lever will be level with the socket latch.

Note: SFP cage socket orientation may vary. Ensure that the SFP transceiver module is correctly oriented each time that you are inserting a transceiver.

4. Hold the sides of the SFP transceiver and slide it into the cage socket until it clicks into place.





5. Press the **transceiver** firmly into the **cage socket** with your thumb.
6. Verify that the **transceiver** is latched correctly by grasping the sides of the **transceiver** and trying to pull it out without lowering the **extraction lever**.

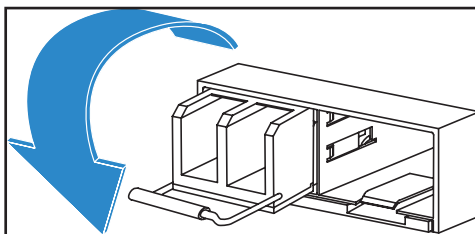
If the **transceiver** cannot be removed, it is installed and latched correctly.

If the **transceiver** can be removed, reinsert it and press harder with your thumb.

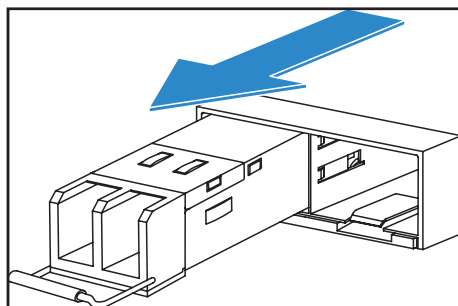
If necessary, repeat this process until the **transceiver** is securely latched into the **cage socket**.

To remove the SFP transceivers

1. Ensure that you are properly grounded.
2. If applicable, disconnect the **fiber-optic cable** from the **transceiver connector** and install a clean **dust plug** in the **transceiver's optical bores**.
3. Pull the **extraction lever** out and down to eject the **transceiver**. If you are unable to use your finger to open the **lever**, use a **small flat-head screwdriver** or other similar tool to open the **lever**.



4. Hold the sides of the **transceiver** and carefully pull it away from the **cage socket**.



5. Replace the **cap** on the **SFP cage socket** and place the removed **SFP transceiver** into an **antistatic bag**.

Caution: Do not force the SFP transceivers into the cage slots. If the transceiver does not easily slide in and click into place, it may not be aligned correctly or may be upside down. If this happens, remove the SFP transceiver, realign it or rotate it and slide it in again.

Note: Follow proper fiber-optic handling procedures when installing and removing SFP transceivers to ensure the devices remain clean and are not damaged.





2x HDD Bay

Hot-swappable HDD bays for Log Disk usage

* Default configuration is 1x HDD. HDD2 is reserved for users need RAID for data reliability.

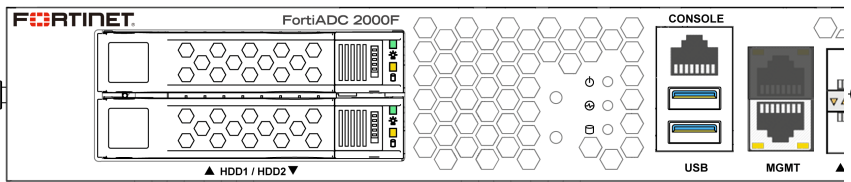
Console

Optional connection to the management computer. Provides access to the CLI.

NMI Button

Reserved for software application

Not in use



Reset Button

Reboot the system

2 x USB Ports

Reserved for future use

8x
Gigabit
Ethernet
Ports

MGMT

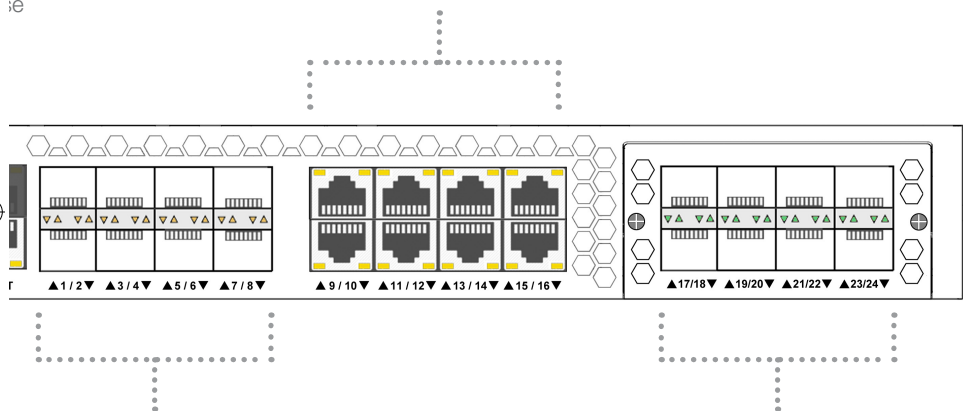
Dedicated Gigabit Ethernet Management Port for system management



Device Guide

8x RJ45 Ports 9-16

Gigabit Ethernet RJ-45 ports for connections to your network



8x SFP Port 1-8

Gigabit Ethernet SFP ports for connections to your network

8x SFP+ Ports 17-24 *

10G Ethernet SFP+ ports for connections to your network

* Although each of port 17-24 is 10G Ethernet SFP+ port, the total bandwidth that links connected to port 17-20 can reach is limited to 20Gbps, and so do port 21-24.

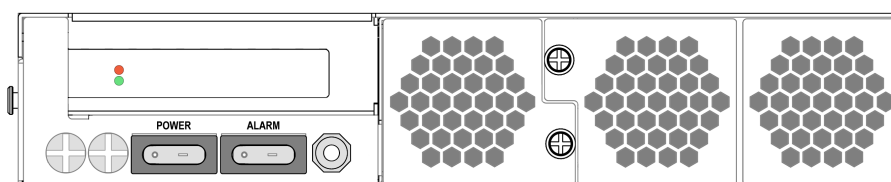


Power Supply Warning Buzz Reset Button

To disable power supply warning buzz

ESD Anchor

For user connection to their ESD wrist band



Power Switch

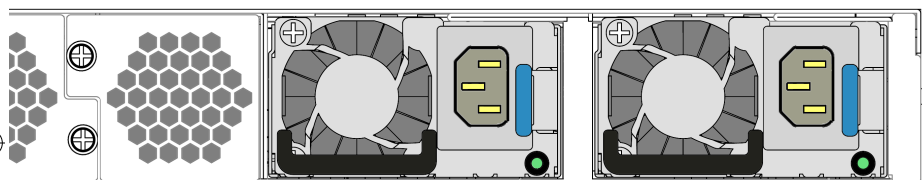
To turn the power ON/OFF

Grounding Screws

Provides extra grounding



Device Guide



Power Connections

100 – 127VAC 7.1A, 200 – 240VAC 3.4A, 47 – 63Hz
redundant power supply



HDD1/2 POWER (Top)

- Green: HDD is installed and powered ON

HDD1/2 Status (Bottom)

- ☀ Flashing Amber: HDD in use

Power

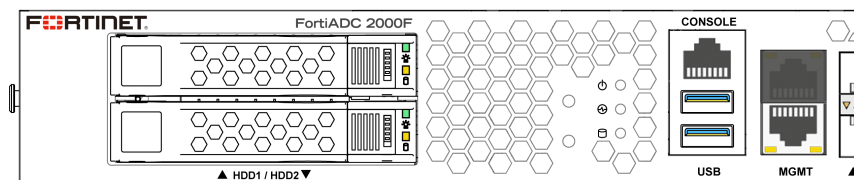
- Green: The unit is ON
- Off: The unit is OFF

Status

- Off: System is normal
- Green: Minor system alarm
- Red: System failure

HDD Status

- ☀ Flashing Amber: HDD in use



MGMT Link/Activity (Left)

- ☀ Flashing Amber: Transmitting & receiving data
- Off: Port is not in use

MGMT Speed (Right)

- Amber: Port is connected at 1Gbps
- Green: Port is connected at 100Mbps
- Off: Port is connected at 10Mbps or no link established



Device Guide

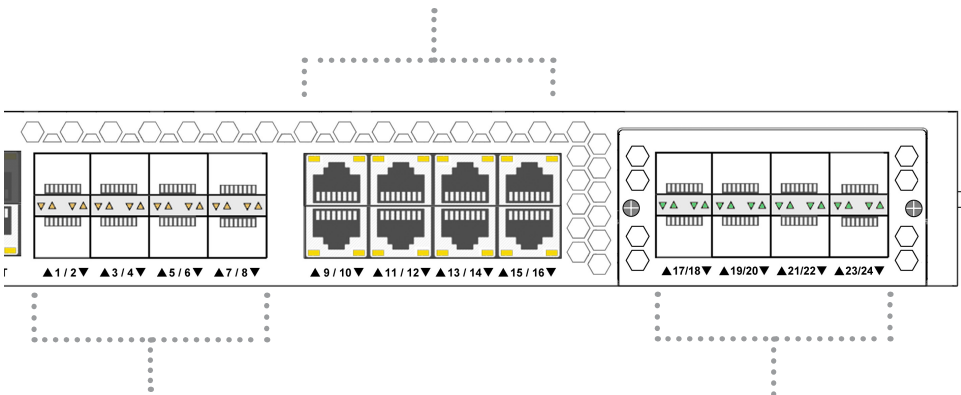
PORT 9 – 16 Link/Activity (Left)

 **Flashing Amber:** Transmitting & receiving data

- Off: Port is not in use

PORT 9 – 16 Speed (Right)

- **Amber:** Port is connected at 1Gbps
- **Green:** Port is connected at 100Mbps
- Off: Port is connected at 10Mbps or no link



PORT 1 – 8 Link/Activity (Left)

 **Flashing Amber:** Transmitting & receiving data

- Off: Port is not in use

PORT 1 – 8 Speed (Right)

- **Amber:** Port is connected at 1Gbps
- Off: No link established

PORT 17 – 24 Link/Activity (Left)

 **Flashing Green:** Transmitting & receiving data

- Off: Port is not in use

PORT 17 – 24 Speed (Right)

- **Green:** Port is connected at 10Gbps
- Off: Port is connected at 1Gbps or no link established



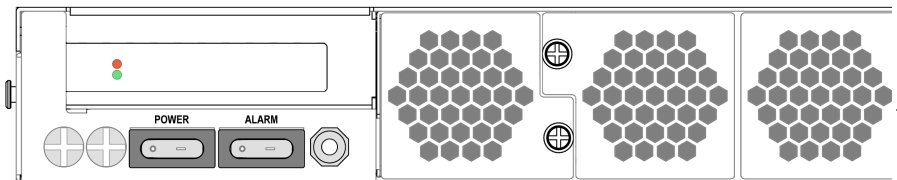
SSL Accelerator Alarm (Top)

● Off: Accelerator is operating normally

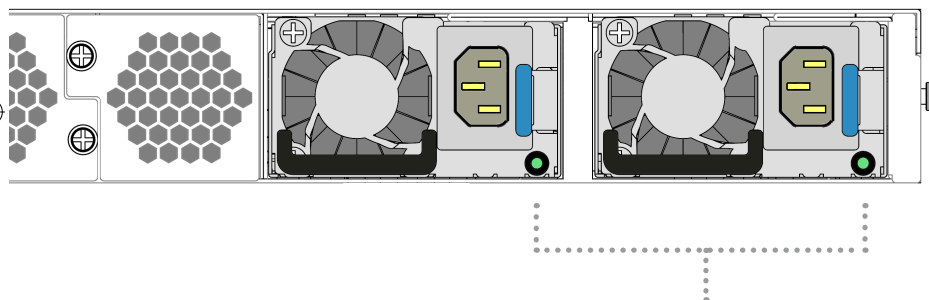
● Red: Accelerator failure

SSL Accelerator Power (Bottom)

● Green: Accelerator is up and running



Device Guide



Power Supply Status

- **Green:** Power supply is operating normally
- **Red:** Power supply is not connected to power or failure



Cautions and Warnings

Environmental specifications

Ambient operating temperature: 0C to 40C

Rack Mount Instructions - The following or similar rack-mount instructions are included with the installation instructions:

Instructions de montage en rack - Les instructions de montage en rack suivantes ou similaires sont incluses avec les instructions d'installation:

Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.

Température ambiante élevée - S'il est installé dans un rack fermé ou à unités multiples, la température ambiante de fonctionnement de l'environnement du rack peut être supérieure à la température ambiante de la pièce. Par conséquent, il est important d'installer le matériel dans un environnement respectant la température ambiante maximale (Tma) stipulée par le fabricant.

Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.

Ventilation réduite - Installation de l'équipement dans un rack doit être telle que la quantité de flux d'air nécessaire au bon fonctionnement de l'équipement n'est pas compromise.

Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

Chargement Mécanique - Montage de l'équipement dans le rack doit être telle qu'une situation dangereuse n'est pas liée à un chargement mécanique inégal.

Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

Surtenstion - Il convient de prendre l'ensemble des précautions nécessaires lors du branchement de l'équipement au circuit d'alimentation et être particulièrement attentif aux effets de la suralimentation sur le dispositif assurant une protection contre les courts-circuits et le câblage. Ainsi, il est recommandé de tenir compte du numéro d'identification de l'équipement.

Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

Fiabilité de la mise à la terre - Fiabilité de la mise à la terre de l'équipement monté en rack doit être maintenue. Une attention particulière devrait être accordée aux connexions d'alimentation autres que les connexions directes au circuit de dérivation (par exemple de l'utilisation de bandes de puissance).

Refer to specific Product Model Data Sheet for Environmental Specifications (Operating Temperature, Storage Temperature, Humidity, and Altitude)
Référez à la Fiche Technique de ce produit pour les caractéristiques environnementales (Température de fonctionnement, température de stockage, humidité et l'altitude).

Safety

Moving parts — Hazardous moving parts. Keep away from moving fan blades.

Pièces mobiles - Pièces mobiles dangereuses. Se tenir éloigné des lames mobiles du ventilateur.

Warning: Equipment intended for installation in Restricted Access Location.

Avertissement: Le matériel est conçu pour être installé dans un endroit où l'accès est restreint.

Battery - Risk of explosion if the battery is replaced by an incorrect type. Do not dispose of batteries in a fire. They may explode. Dispose of used batteries according to your local regulations. IMPORTANT: Switzerland: Annex 4.10 of SR814.013 applies to batteries.

Batterie - Risque d'explosion si la batterie est remplacée par un type incorrect. Ne jetez pas les batteries au feu. Ils peuvent exploser. Jetez les piles usagées conformément aux réglementations locales. IMPORTANT: Suisse: l'annexe 4.10 de SR814.013 s'appliquent aux batteries.

警告

本電池如果更換不正確會有爆炸的危險

請依製造商說明書處理用過之電池

Caution: Disconnect power supply cords before servicing.

Attention: Débranchez les cordons de la source d'alimentation avant tout entretien.

Caution: Slide/rail mounted equipment is not to be used as a shelf or a work space.

Attention: Un équipement monté sur bâti ne doit pas être utilisé sur une étagère ou dans un espace de travail.





Regulatory Notices

Federal Communication Commission (FCC) – USA

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received; including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

WARNING: Any changes or modifications to this product not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Industry Canada Equipment Standard for Digital Equipment (ICES) – Canada

CAN ICES-3 (A) / NMB-3 (A)

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Cet appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

European Conformity (CE) - EU

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.



Voluntary Control Council for Interference (VCCI) – Japan

この装置は、クラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。V C C I – A

Product Safety Electrical Appliance & Material (PSE) – Japan

日本では電気用品安全法(PSE)の規定により、同梱している電源コードは本製品の専用電源コードとして利用し、他の製品に使用しないでください。

Bureau of Standards Metrology and Inspection (BSMI) – Taiwan

這是甲類資訊產品，在居住性的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

China

此为A级产品，在生活环境中，该产品可能会造成无线电干扰。这种情况下，可能需要用户对其采取切实可行的措施。





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Communicate with other customers and Fortinet partners about Fortinet products, services, and configuration issues.

<https://support.fortinet.com/forum>

FortiGuard Threat Research and Response

Up-to-date information on vulnerabilities and threats, includes a virus scanner, IP signature look-up, and web filtering tools.

<http://www.fortiguard.com>

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Fortinet.com

